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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/552,564	04/19/2000	Yehuda Binder	YU-26	3972

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EXAMINER

HOANG, THAI D

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/552,564

Applicant(s)

BINDER, YEHUDA



Examiner

Thai D Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Application filed on 04/19/2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 16-37 is/are rejected.
- 7) ☒ Claim(s) 13-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1.1 Claims 1, 7-8, 16-23, 26-30 and 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al, US Patent No. 5,150,365 in view of Ikegami, US Patent No. 5,828,663, hereafter referred to as Hirata and Ikegami respectively.

Regarding claims 1, 20, 27, 34 and 37, Hirata discloses a LAN communication system for coexistent base band and broadband signals; fig. 1. Hirata teaches that the LAN is a wired network comprising:

at least one electrical conducting line of a building having at least two conductors and operative to transport both base band and broadband signals; fig. 1; abstract; col. 1, line 59 - col. 2, line 20; (at least one electrically-conducting line within the building, said electrically-conducting line having at least two conductors and operative to transport data communication signals)

filtering units 5 coupled to the electrical conducting line; fig. 1 (at least two outlets, each operative for coupling to the electrically-conducting line)

branch circuit 7 and 8 coupled to electrical conducting line in order to communicates with the work station 9 and TV 10; fig. 1; abstract; col. 1, line 59 - col. 2, line 20 (at least one wired modem coupled to said electrically-conducting line, operative

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to communicate over said electrically-conducting line and furthermore operative for concurrently distributing a service other than the transport of data communication signals)

Hirata does not teach that the network comprises a non-wired segment.

However, Ikegami discloses an access control system for wireless LAN terminals.

Ikegami teaches that the system comprises a wireless modem 104 (non-wired modem) coupled to a wired LAN network 103; see fig. 4 and 5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt wireless LAN modem disclosed by Ikegami into Hirata's system in order to improve services for users because it allows the users access to the LAN by either wired-line and wireless mode.

Regarding claims 7-8, 26 and 33, Hirata teaches that the network transmits both data communication and TV concurrently over a cable TV.

Regarding claims 16 and 19, Hirata does not teach that the system comprises a module operative to coupling said wired segment to said non-wired segments. However, Ikegami teaches that the system comprises a wireless modem 104 and a transmit/receive system 105 coupled to wired network. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt wireless LAN modem disclosed by Ikegami into Hirata's system for advantages cited above with respect to claim 1.

Regarding claims 17-18, 22-23, 29-30 and 35-36, Ikegami does not explicitly teach that the wireless modem 104 and a transmit/receive unit 105 are fully integrated or partially integrated within one of the outlets. See *In re Larson*, 144 USPQ 347 (CCPA

1965). It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate wireless modules disclosed by Ikegami in order to simplify the hardware of the system.

Regarding claims 21 and 28, the network disclosed by Ikegami inherently comprises the step of converting from a wired line protocol to a wireless protocol in order to ensure the communication between wire line and wireless mode.

1.2 Claim 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al, US Patent No. 5,150,365 in view of Ikegami, US Patent No. 5,828,663, Dodds et al, US Patent No. 5,841,841 and further in view of publication "A Transmitting and Receiving Method for CDMA Communications Over Indoor Electrical Power Lines" published by Okazaki; hereafter referred to as Hirata, Ikegami, Dodds and Okazaki respectively.

Regarding claim 2, Hirata teaches that the LAN services both base band and broadband signals; abstract; col. 1, line 59 - col. 2, line 20; Hirata does not teach the LAN transmits telephone service and power service. However, Dodd discloses a system that allows both voice and data signal transmit simultaneously in a cable 10; abstract, fig. 1; and Okazaki teaches a network including data signal transmitted in an electrical power network. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method disclosed by Dodds and the method disclosed by Okazaki into the Hirata's system in order to reduce the cost of the network and manage the network easily since all of the services data, TV, telephone, and power are transmitted in only one electrical conducting line network.

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1.3 Claims 3-4, 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al, US Patent No. 5,150,365 in view of Ikegami, US Patent No. 5,828,663, and further in view of Dodds et al, US Patent No. 5,841,841, hereafter referred to as Hirata, Ikegami, and Dodds respectively.

Regarding claims 3-4, 24 and 31, both Hirata and Ikegami do not teach that the electrical conducting lines is a telephone line and one of the outlets is a telephone outlet and the telephone line provides both telephony and data service concurrently. However, Dodds teaches that at the customer site, both voice and data signals are transmitted on the same telephone line; figure 1; abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method disclosed by Dodds into the Hirata's system for a advantages cited above with respect to claim 2.

1.4 Claims 5-6, 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al, US Patent No. 5,150,365 in view of Ikegami, US Patent No. 5,828,663, and further in view of publication "A Transmitting and Receiving Method for CDMA Communications Over Indoor Electrical Power Lines" published by Okazaki, hereafter referred to as Hirata, Ikegami and Okazaki respectively.

Regarding claims 5-6, 25 and 32, both Hirata and Ikegami do not teach that the electrical conducting lines is a power line and wherein at least one of said outlets is a power outlet, and the power line is operative to carrying both electrical power and data communications concurrently. However, Okazaki teaches that the network transmits both electric power and CDMA data signal concurrently over an indoor power lines

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network; abstract; part 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method disclosed by Okazaki into the Hirata's system for advantages cited above with respect to claim 2.

1.5 Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al, US Patent No. 5,150,365 in view of Ikegami, US Patent No. 5,828,663, and further in view of publication "Wireless LAN Technologies and Applications" published by Dastangoo, hereafter referred to as Hirata, Ikegami and Dastangoo respectively.

Regarding to claims 9-12, both Hirata and Ikegami do not explicitly teach that the non-wired segment is operative to communicating data by infrared light and RF transmission. However, Dastangoo suggests a wireless LAN which is operative to communicating data by infrared light and RF transmission; abstract; part I and II. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless LAN method disclosed by Dastangoo into the Hirata's system in order to adapt with conventional system used in the network.

#### ***Allowable Subject Matter***

2. Claims 13-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

3.1 The following references are cited to further show the state of the art with respect to the application:

US Patent No. 6,353,599 B1 to Bi et al.

US Patent No. 5,255,267 A to Hansen et al.

US Patent No. 6,549,616 B1 to Binder.

3.2 The following publications are cited to further show the state of the art with respect to the application:

Kelly, J.C.; Waters, C.J.; Buffkin, E.; "Power Line Based LAN Applications in Residential Communication and Control"; Wireless LAN Implementation, 1992; IEEE Conference on 17-18 Sept. 1992, pp. 38 –41.

Sado, W.N.; Kunicki, J.S.; "Personal Communication on Residential Power Lines-Assessment of Channel Parameters"; Fourth IEEE International Conference on 6-10 Nov. 1995, pp. 532 –537.

Newbury, J.; Miller, W.; "Potential Communication Services Using Power Line Carriers and Broadband Integrated Services Digital Network"; IEEE Transactions on Oct. 1999; Vol. 14, pp. 1197 –1201.

Yi-Fu Chen; Tzi-Dar Chiueh; "A 100-kbps Power-Line Modem for Household applications"; International Symposium on 8-10 June 1999, pp. 179-182.

Yi-Fu Chen; Tzi-Dar Chiueh; "Baseband Transceiver Design of a 128-kbps Power-Line Modem for Household Applications"; IEEE Transactions Issue: 2, April 2002, Vol. 17 pp. 338-344.



Zeino, H.; Misson, M.; "Functional Approach to a Hybrid Wireless Network for Mobile Stations"; Personal, Indoor and Mobile Radio Communications, 1994. 5th IEEE International Symposium on 18-23 Sep 1994; Vol. 3, pp. 994 –998.

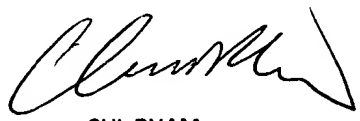
Pahlavan, K.; Probert, T.H.; Chase, M.E.; "Trends in Local Wireless Networks"; Communications Magazine, IEEE, Issue: 3, March 1995, Vol. 33 pp. 88-95.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Thai Hoang  
July 27, 2003

  
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TECHNOLOGY CENTER 2600 7/28/03